



PubMed	Nucleotide	Protein	Genome	Structure	PMC	Taxonomy	OMIM	Book	
Search	PubMed	<input type="text"/> for				<input type="button"/> Go	<input type="button"/> Clear		
				Limits	Preview/Index	History	Clipboard	Details	
				<input type="button"/> Display	<input type="button"/> Abstract	<input type="checkbox"/> Show: 20	<input type="checkbox"/> Sort	<input type="checkbox"/> Send to	<input type="button"/> Text

1: Breast Cancer Res Treat 2002 Jul;74(2):155-65

[Related Articles](#), [Links](#)

Entrez PubMed

Novel therapeutic approach: ligands for PPARgamma and retinoid receptors induce apoptosis in bcl-2-positive human breast cancer cells.

PubMed Services

Elstner E, Williamson EA, Zang C, Fritz J, Heber D, Fenner M, Possinger K, Koeffler HP.

Division of Hematology/Oncology, School of Medicine Charite, Humboldt University, Berlin, Germany. elena.elstner@charite.de

Related Resources

Effective treatment of tumors is often associated with activation of the endogenous apoptosis pathways. We have studied eight breast cancer cell lines (MCF-7, BT20, BT474, MDA-MB-231, MDA-MB-436, SKBR3, T-47D, ZR-75-1) possessing a variety of genetic defects. The clonogenic growth of breast cancer cell lines was inhibited by a ligand for PPARgamma (troglitazone, TGZ) combined with a ligand for either retinoid X receptor (RXR) (LG10069) (4/8 cell lines), RAR (ATRA) (5/8 cell lines) or RAR/RXR and RXR/RXR (9-cis-RA) (5/8 cell lines) independent of their expression of bcl-2, bag-1, ERalpha, and p53. The cell lines (MCF-7, T-47D, ZR-75-1), which expressed both BRCA1 and p27, were extremely sensitive to the inhibitory effect of the combination of TGZ and either ATRA or 9-cis-RA (ED90, 2-5 x 10(-11) M). However, only MCF-7, MDA-MB-231, and ZR-75-1 cells, which expressed a high level of bcl-2 protein, underwent apoptosis when exposed to the combination of TGZ and either ATRA or 9-cis-RA. Importantly, this effect was independent of expression levels of p53, ERalpha, HER-2/neu, bag-1, and BRCA1. Therefore, the combination of ligands for PPARgamma and retinoid receptors may have a therapeutic role for breast cancer.

PMID: 12186376 [PubMed - indexed for MEDLINE]

<input type="button"/> Display	<input type="button"/> Abstract	<input type="checkbox"/> Show: 20	<input type="checkbox"/> Sort	<input type="checkbox"/> Send to	<input type="button"/> Text
--------------------------------	---------------------------------	-----------------------------------	-------------------------------	----------------------------------	-----------------------------

[Write to the Help Desk](#)
NCBI | NLM | NIH